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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/690,566	10/17/2000	Michael P. Lilly	LLY-004	1577
21323	7590	06/21/2004	EXAMINER	
TESTA, HURWITZ & THIBEAULT, LLP			IRSHADULLAH, M	
HIGH STREET TOWER			ART UNIT	PAPER NUMBER
125 HIGH STREET				
BOSTON, MA 02110			3623	

DATE MAILED: 06/21/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	09/690,566	LILLY ET AL. <i>MW</i>	
	<b>Examiner</b>	<b>Art Unit</b>	
	M. Irshadullah	3623	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) Responsive to communication(s) filed on 17 October 2000.
- 2a) This action is FINAL.                    2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) Claim(s) 1-33 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 1-33 is/are rejected.
- 7) Claim(s) 1-18, 19 and 31 is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) All    b) Some \* c) None of:
  1. Certified copies of the priority documents have been received.
  2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____ .  |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>5 and 6</u> . | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
|  | 6) <input type="checkbox"/> Other: _____ .                                  |

## **DETAILED ACTION**

### ***Claim Objections***

1. Claims 4-13 and 17-18 are objected to because of the following informalities:
  - a) Please delete entries like (e), (f), (g) etc. in the cited claims, and
  - b) Claim 18, is presented as depending from claim 32, needs be corrected.

Examiner is considering as depending from claim 1.

- c) Please amend “comparator” in claims 19 and 31 as “comparator”.

Appropriate correction is required.

### ***Claim Rejections - 35 USC § 112***

2. Following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claim 18 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In regard to claim 18, it is unclear/indefinite as to which claim it is dependent from.

### ***Claim Rejections - 35 USC § 101***

4. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

5. Claims 1-18 are rejected under 35 U.S.C. 101, because the claimed invention is directed to non-statutory subject matter.

The basis for this rejection is set forth in two prong test of:

- 1) whether the invention is within the technological arts, and
- 2) whether the invention produces a useful, concrete and tangible result.

For a claimed invention to be statutory, the claimed invention must be within the technological arts. Mere ideas in the abstract (i.e., abstract idea, law of nature, natural phenomena) that do not apply, involve, use or advance the technological arts fail to promote the "progress of science and the useful arts (i.e., the physical sciences as opposed to social sciences, for example) and therefore are found to be no-statutory subject matter. For a process claim, the recited process must some how execute, apply, use or advance the technological arts.

In the present case, claims 1 only recite abstract idea. Recited steps of receiving item orders, scheduling, selecting, comparing and deriving customer service measurement do not apply, involve, use or advance the technological arts, since all of recited steps can be performed in the mind of the user or by use of a pencil and paper. The steps only constitute an abstract idea of deriving customer service measurements.

Additionally, for a claimed invention to be statutory, the claimed invention must produce a useful, concrete and tangible result. In the instant case the invention derives a customer service measurement simply through comparison, it does not compute or generate the same and then use it for some practical utility.

Moreover, the last step e) recites "customer service measurement comprising at least one of time or money", however, prior steps do not show as to said measurement is correlated to said time or money.

Thus, the claimed invention is an abstract idea, does not produce concrete and tangible result, the claimed invention as a whole is not within the technological arts as explained above, claim 1 is deemed to be directed to non-statutory subject matter.

Claim 1 is, therefore, rejected under 35 U.S.C. 101 and same rationale holds for claims 2-18.

In order to overcome the rejection, it is suggested to recite computation device or computer within claim step or steps and claim language be amended in the light of above stated reasons.

#### ***Claim Rejections - 35 USC § 102***

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

7. Claims 1-33 are rejected under 35 U.S.C. 102(e) as being anticipated by Powell (US Patent 6,195,590 B1).

Powell discloses:

- Claim 1. A computerized method for determining customer service impact, comprising:
- a) receiving item orders having a requested completion date (Col. 2, lines 17-33, wherein "project manager's primary computer 20, establishing network of manufacturing activities, assigning time duration estimates, baseline schedule dates comprising start and end or completion dates, lines 16-23", transferring established data or information to "activity managers' secondary computers 21, lines 26-27" for performing some functions, such as "calculating delta values" inferring that cited activity managers computer 21 "receiving commands or orders" from said projection manager computer 21, and cited "network of manufacturing activities, assigned time duration estimates, baseline schedule dates etc." indicating "elements or items" of said order);
  - b) scheduling a scheduled completion date for each item order (Col. 2, lines 17-23, wherein "establishing baseline schedule comprising activity start dates and end or completion dates, lines 22-23" clearly pointing to "scheduling completion date" relative to above discussed order elements or items);
  - c) selecting at least one item order, each item order having a scheduled completion date (Col. 22, lines 62-63, wherein "selection of activity" indicating the availability of a "choosing or selecting" function and a user would use said function for selecting one or more of the above discussed elements or items of the order and as discussed above, one of the item relating to activity end or completion date);

Art Unit: 3623

d) comparing the scheduled completion date with the requested completion date for each selected item order (Col. 6, line 63 through col. 3, line 9, wherein "comparing delta values" inferring comparing baseline scheduled or required dates and completion or actual dates as indicated by "delta vale is the difference between actual or completion dates and scheduled or required completion dates, col. 3, lines 2-3); and

e) deriving a customer service measurement for each selected item order based on the comparing step, the customer service measurement comprising a measurement of at least one of time and money (Col. 3, lines 2-13, wherein "estimated delta value, lines 2-3" being "measure of early or lateness" is indeed an indicator or measurement of how a customer is impacted or is a "customer service indicator or measurement", it involving or comprising time or money as indicated by "project manager 21 balancing costs against benefit/penalty of early or late finishing, col. 6, lines 29-31").

Claims 2 and 20. The method of claim 1/19 wherein step e further comprises: deriving a customer service measurement for each item order based on the comparing step, the customer service measurement comprising the time difference between the requested completion date and a scheduled completion date (Col. 2, line 66 through col. 3, line 9, wherein "delta value = actual date - required or requested date" or the "difference" of said dates and vice versa as per lines 3-9).

Claims 3 and 21. The method of claim 2/20 wherein the time difference is measured in one or more of years, weeks, days, hours, minutes, and seconds (Col. 2, line 61, wherein "measuring time in working days" indicating reference's capability of determining above discussed difference in any format including the claimed ones).

Claims 4 and 22. The method of claim 1 wherein the step e comprises:  
deriving a customer service measurement for each item order based on the comparing step, the customer service measurement comprising the value of the item order (As discussed above, reference's "delta value" is a customer service indicator or measurement and being related to above discussed order items or elements, it is also an element or item of the order received by activity manager computer 21 from project manager computer 20).

Claims 5 and 23. The method of claim 1/19 wherein the step e comprises:  
deriving a customer service measurement for each item order based on the comparing step, the customer service measurement comprising the amount of time difference between the requested completion date and a scheduled completion date multiplied by the value of the item order (Inherent, since for arriving at early or lateness delta value {being a difference between above discussed dates} is multiplied by the number or value above discussed order elements or items).

Claims 6 and 24. The method of claim 1/19 wherein the step e comprises:

Art Unit: 3623

deriving a customer service measurement for each item order based on the comparing step, the customer service measurement comprising the amount of time difference between the requested completion date and a scheduled completion date multiplied by the value of the item order and multiplied by a predetermined interest rate (Inherent, since above discussed value is multiplied by the rate of finance or interest to pay for the lender or the customer if he so demanded).

Claims 7 and 25. The method of claim 1/19, further comprising the step of: determining an overall customer service measurement based on the customer service measurement for each item order (Estimated or determined delta value discussed in Applicant's element 1e) above, when computed for every customer, it would result into total or overall customer service indicator or measurement and it would relate to above discussed elements or items of the order).

Claims 8 and 26. The method of claim 7/19 further comprising the step of: reporting the overall customer service measurement as the overall customer service measurement for that scheduling operation (Col. 5, lines 47-49, wherein a user would use cited "reporting" function for reporting above discussed total or overall customer service indicator or measurement for an "specific" or "that" scheduling action or operation).

Claims 9 and 27. The method of claim 7/19 further comprising the step of: displaying the customer service measurement on a calendar showing the total customer service measurement for a predetermined time period (Fig. 2 {20 and 21}, wherein "20" comprising a "display, col. 5, lines 61-62" and "21" comprising "display, col. 5, lines 9-11" and user would use said displays for claimed purpose. Moreover, reference employs "calendar date, col. 2, lines 62-65", a user would use this facility to use the system for calendaring and depicting information in calendar format or on calendar).

Claims 10, 13 and 28. The method of claim 7/11/19, further comprising the step of repeating steps b) through g) for different schedules to determine the customer service impact of schedule changes (Inherent, since repeating computation or logic elements or steps is so well practiced in computer arts since long before Applicant's invention that a user would consider its use as inherent).

Claims 11 and 29. The method of claim 1/19, further comprising the step of: determining an customer service measurement for a first customer based on the customer service measurement for each item order from the first customer (See discussion of Applicant's claim 1e) above, and a user would use delta value or customer service indicator or measurement for claimed purpose).

Claims 12 and 30. The method of claim 11/19 further comprising the step of:

displaying the customer service measurement on a calendar showing the total customer service measurement for a predetermined time period (See discussion about “displaying customer service indicator or measurement or delta value” in Applicant’s claim 9, and a user would use it for depicting any thing including the claimed one).

Claims 14 and 31. The method of claim 1/19 wherein step d further comprises:

- i) generating a demand array of item orders (Col. 3, lines 54-57 and Table1, wherein a user would use cited “generating” function for creating or generating matrix or array depicted in Table1 and Table1 showing elements or items Activity Managers computer 21 was demanded to work on by the Project Manager computer 20);
- ii) generating a supply array of manufacturing inventory (Col. 3, lines 54-57 and Table2, wherein a user would use cited “generating” function for creating or generating matrix or array depicted in Table2 and Table2 showing elements or items worked on by Activity Managers computer 21 and supplied to Project Manager computer 20);
- iii) selecting an item order in the demand array (A user would use “selection” function discussed in Applicant’s claim 1c) for claimed purpose);
- iv) matching manufacturing inventory in the supply array with the selected item order (A user would use “comparing or matching” function discussed in Applicant’s claim 1d) and a user would use it for claimed purpose. Moreover, reference relating to manufacturing, has to have “inventory” as indicated by col. 1, line 22 “excess inventories”);

v) comparing the scheduled completion date of an item in the supply array with the requested completion date for the matched item in the demand array (A user would use “comparing” function discussed in Applicant’s claim 1d) for comparing above discussed scheduled and required or requested completion dates).

Claims 15 and 32. The method of claim 14/31 wherein step i) comprises: generating a demand array of unshipped customer line items (Col. 3, lines 54-57, therein a user would use cited “generating” function for creating or generating any thing including a vector or list or array of claimed unshipped demanded elements or items).

Claims 16 and 33. The method of claim 14/31 wherein step ii) comprises: generating a supply array of at least one of inventory work orders and manufactured inventory (Col. 3, lines 54-57, wherein a user would use cited “generating” function for creating or generating a vector or list or array of above discussed supply relating to above discussed inventory and finished or manufactured goods).

Claim 17. The method of claim 1, further comprising the steps of: identifying a subset of work orders having a customer service measurement greater than a predetermined threshold (Col. 5, lines 18-21, wherein a user would use cited “identifying” function for above discussed delta value or customer service indicator

or measurement which has an optimal or threshold value as indicated by col. 6, lines 32-42);

performing at least one of a utilization, contention, and material constraint inquiry on the subset of work orders (Col. 5, lines 13-15, wherein “beginning of an activity constrained by completion of another activity” indicating applying or performing “constraint”).

Claim 18. The method of claim 32, further comprising the step of:  
identifying as a potential bottleneck a material or resource having the greatest result in the at least one of a utilization, contention, and material constraint inquiry (Col. 5, lines 18-21, wherein a user would use cited “identifying” function for “recognizing or identifying” if an element requisite for an activity has been entered or not or is unavailable” and “not entering or unavailability” of said element required for an activity representing “bottleneck”).

Claim 19. A system for determining customer service impact, comprising:  
a) a receiver for receiving item orders having a requested completion date (See Applicant's claim 1a) above);  
b) a scheduler for scheduling a scheduled completion date for each item order (See Applicant's claim 1b) above);  
c) a selector for selecting at least one item order, each item order having a scheduled completion date (See Applicant's claim 1c) above);

d) a comparator for comparing the scheduled completion date with the requested completion date for the selected item orders (See Applicant's claim 1d) above); and

e) a measurement subsystem for deriving a customer service measurement, the customer service measurement comprising at least one of time and money, for each selected item order based on the comparison (See Applicant's claim 1e) above).

***Conclusion***

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- A) Janovski et al., US Patent 5,726,914. Computer Implemented Process And Computer Architecture For Performance Analysis.
- B) Wood, US Patent 5,381,332. Project Management System With Automated Schedule And Cost Integration.
- C) Powell, US Patent 5,291,397. Method For Resource Allocation And Project Control For The Production Of A Product.
- D) Automated Manufacturing Costing System And Method.
- E) Oba et al., US Patent 5,241,465. Method For Determining Optimum Schedule In Computer-Aided Scheduling System.
- F) Chapman, US Patent 5,128,860. Manufacturing Or Service System Allocating Resources To Associated Demands By Comparing Time Ordered Arrays Of Data.
- G) Kotani, US Patent 5,105,362. Method For Producing Semiconductor Devices.

H) Beasley et al., US Patent 4,827,423. Computer Integrated Manufacturing System.

I) Powell, US Patent 4,648,023. Method For Resource Allocation For The Manufacture Of A Product.

J) Lawlor et al., US Patent 6,202,054 B1. Method And System For Remote Delivery Of Retail Banking Services

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to M. Irshadullah whose telephone number is 703-308-6683. The examiner can normally be reached on 10:00 a.m. to 6:00 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tariq Hafiz can be reached on 703-305-9643. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9326 and for after Final 703-872-9327.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

M. Irshadullah  
March 11, 2004

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